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#### ANTARCTIC NAMES

BY

#### EDWIN SWIFT BALCH

The South Polar regions, in respect to their nomenclature, are different from every other part of the world. As there are no inhabitants, there are no native names. All the names applied to all places beyond 60° S., have been given either by explorers or by stay-at-home geographers. While this nomenclature is in most cases satisfactory, it is, as yet, not entirely so. Some confusion has resulted from the natural tendency of each nationality of adopting the names given by its own explorers. Places have been named, then renamed, then perhaps renamed again. But although the Antarctic region is "No Man's Land" in International Law,\* yet at present it is the stamping ground of explorers and scientists, and it would seem therefore as if scientific geographers had full sway and should crystallize Antarctic names in accordance with the claims of discovery.

A philosophic nomenclature of the Antarctic regions must, in the nature of things, be based on geographic and historic facts. Certain names may well be descriptive and others should be commemorative. This is tantamount to saying that Antarctic nomenclature must be founded on truth and justice, since geography and history are simply records of things as they are or of events which have

<sup>\*</sup> Thomas Willing Balch: "The Arctic and Antarctic Regions and the Law of Nations": The American Journal of International Law, 1910. Thomas Baty: "Arctic and Antarctic Annexation": Law Magazine and Review, Vol. XXXVII, 1912, pp. 326-328.

happened. A proper Antarctic nomenclature must have its source in loyalty to humanity and to science, and not spring from servile obedience to national prejudices and national greed. The golden rule of doing unto others as you would like done unto yourself should ever be borne in mind, and international fair play should insist upon justice being awarded to all.

Since the Antarctic regions are "No Man's Land," and belong to the human race collectively, it seems self-evident that any names invented and applied to them as a whole, or used arbitrarily to designate large parts of them, whether as halves or quadrants or segments, or in any other divisions though convenient, should be international.

Smaller portions of the Antarctic regions, on the contrary, while politically "No Man's Land," historically belong to their discoverers. And from this fact springs automatically the correct local Antarctic nomenclature. Priority of discovery should be the guiding principle of the historical geographer. The claims of the explorers should be thought of first. The men who risked their lives and added to the sum of knowledge deserve to be commemorated by having their names attached to their discoveries. But often explorers have christened their discoveries by other names than their own, thus blotting out their most visible memorial to fame, and it is occasionally difficult to decide whether it is wisest to retain the name given by an explorer or to replace it by his own name. If the names of Antarctic voyagers, however, are applied to places within the Antarctic regions, they should always be applied to their own discoveries or at least confined to those parts where they have travelled, for it is historically confusing if they are connected with localities where the explorers themselves have not been. There are many crevasses in Antarctic nomenclature for historical geographers to fall into, but they can keep out of some of them by sticking to priority of discoverv.

Next to the explorers themselves, the men who deserve to be commemorated are the men who supplied the funds. Financiers like Grinnell in the north, the Coats and Longstaff in the south, should never be forgotten. They handed out the cash to outfit expeditions, and their share was just as vital as that of the men who carried out those expeditions.

Confusion about names sometimes arises owing to different explorers having given different names to the same place. Confusion also results from the fact that in some cases names have been duplicated. Difficulties also sometimes occur because a wrong name or a later name has become identified with a place. It is important for the sake of clearness that all such errors be corrected as soon as possible. Priority of discovery should be the guide. In the few instances of duplications of names in the Antarctic, the one last given should be changed. When different names have been given to the same place, the first appellation should have prior rights, and when a wrong name has become accepted through custom, it should be banished and a correct one substituted.

A rather curious phase of thought may be noticed in the fact that explorers, when giving names to new discoveries, seem to turn to the leading political, not scientific, personages, in their own land. In the Antarctic we find among others such names as Louis Philippe Land, King Edward VII Land, King Oscar II Land, South Victoria Land, Kaiser Wilhelm II Land, Fallières Land, etc. And why rulers should be honored in this way in the South Polar regions is hard to see. It would seem as though explorers would turn to the names of leading geographers and scientists of their own nation in preference. to men like Humboldt and Rennell and Reclus and Pasteur and Darwin: but for some mysterious reason they do not. The name of Dalrymple, so far as I know, does not appear on Antarctic charts, and yet it would seem as though he might have been commemorated by his own countrymen. Dr. W. S. Bruce\* applied a somewhat drastic remedy to the overindulgence in royal names, by dropping Kings and Kaisers and shortening such names into Edward Land, Wilhelm Land. etc. The innovation seems one to be commended.

The striking example in Antarctic history of how names should be given is found in the nomenclature applied by Wilkes to consecutive parts of the great land he discovered. With the exception of Termination Land, a well found geographic name, all the names Wilkes applied to lands or islands, are commemorative of officers of his expedition. Knox, Budd, Totten, North, Carr, Alden, Case, Hudson, Reynolds, Eld, Ringgold, and also Piner, whose name was given to a bay, thanks to Wilkes' thoughtful and just tribute, will always remain associated with the great discovery in which they bore their share. Wilkes' modesty prevented him from attaching his own name to his discoveries, an omission which the sense of justice of historical geographers fortunately rectified.

In attempting to formulate a geographic and historic nomenclature for the Antarctic regions, one naturally begins with the names for the larger areas. It is known now that round the South Pole

<sup>\*</sup> Polar Exploration, 1911.

there is one great mass of land covered with ice and snow, forming a vast frozen continent. A considerable area of this was known to the early American sealers, enough in fact for Edmund Fanning in 1833 to write twice of it as "the continent of Palmer's Land."\* This appears to be the earliest recognition in print, based on actual knowledge, that there was an Antarctic land big enough in size to be considered as continental. No attention, however, was paid at the time to Fanning's remarks, which were indeed nearly forgotten until republished by the writer in 1902.† But as a question of nomenclature only, these statements of Fanning are also the earliest in which a definite name was applied to the then known mass of continental Antarctic land and the original name for the South Polar continent therefore was PALMER LAND. The lands in the Antarctic regions, however, whose discovery placed emphatically before the world the knowledge that there was a continent and not an ocean at the South Pole, were those discovered by Lieutenant Charles Wilkes, U. S. N. These lands were named by him The Antarctic Continent, and this name must, in the nature of things, always remain as one of the names of the entire landmass. A better name, however, because shorter, is the admirable one proposed by Sir John Murray, Antarctica, and wisely, this has been universally adopted. A better form for it perhaps would be its phonetic rendering, Antartika, but that is a minor detail, and, moreover, it is probably unattainable in English.

There have been several attempts made to find suitable names for the larger areas of Antarctica. The first probably was brought forward in 1899 by Sir Clements R. Markham, who suggested dividing the Antarctic into four quadrants‡ which he called respectively: from the Meridian of Greenwich to 90° W., the Weddell Quadrant; from 90° W. to 180°, the Ross Quadrant; from 180° to 90° E., the Victoria Quadrant; from 90° E. to the Meridian of Greenwich, the Enderby Quadrant. Dr. F. A. Cook§ suggested calling these quadrants the American Quadrant, the Pacific Quadrant, the Australian Quadrant, and the African Quadrant, each of them to be south of the respective continent or ocean after which it would be named. Another proposition of the same kind brought forward, I believe, by Mr. Henryk Arctowski, is to divide the Antarctic into three segments, and to call each segment after the ocean which faces it, the Atlantic, the Indian and the Pacific.

<sup>\*</sup> Voyages, etc., pp. 103, 476. † Antarctica, p. 91. ‡ The Geographical Journal, 1899, pp. 473-481. § A. W. Greely: Handbook of Polar Discoveries, Boston, Little, Brown and Company, 1906, p. 277.

None of these propositions seems available. The nomenclature suggested by Sir Clements R. Markham is impossible, for the selfevident reason that it is national and not international. The names proposed by Dr. Cook and Mr. Arctowski, because they are international and because they locate geographically the position of the quadrant or segment, are much more appropriate than those advanced by Sir Clements R. Markham. Nevertheless the names suggested by Dr. Cook and Mr. Arctowski do not seem strictly practical. They are out of keeping with geographic nomenclature anywhere in the world. Men have always given names to large areas of land or water, and then have given names to portions of these areas; that is, geographic names always apply to definite localities. Thus we have America, North America, South America; and Africa, Central Africa, North Africa, East Africa, West Africa and South Africa. And we do not find such subdivisions for instance as Mediterranean Africa, Atlantic Africa, Indian Africa and Antarctic Africa, which would exactly correspond to the nomenclatures suggested for Antarctica by Dr. Cook and Mr. Arctowski. The fact that no such arrangement has ever been adopted in any corner of the world, shows that it is not a natural, that is, not a good one.

Another method of naming the larger areas of Antarctica springs from the fact that it is situated partly in the Western and partly in the Eastern hemispheres. The meridian of Greenwich and the 180th meridian bisect Antarctica into two rather unequal portions and it is a natural evolution to call these two parts West Antarctica and East The first proposition to this effect was made by the Antarctica. writer himself. While working over the records of Antarctic discovery, it soon became apparent that there was no name by which to refer collectively to the lands—the South Shetlands, the Powell Islands, Palmer Land, Graham Land, etc.—in the western Antarctic. One could not use constantly the cumbersome appellation "the lands south of South America." The writer thought a good deal about this and the solution finally came accidentally. In a letter of July 24. 1901, to the Paris New York Herald, which was published on July 27, 1901, the writer said "Nathaniel B. Palmer, of Stonington, Conn., discovered and first sailed along the northern coast of Western Antarctica." The name was found and the writer proposed in 1902\* the names West Antarctica and East Antarctica for the western and eastern portions respectively of the Antarctic Continent. For, of course, if the name West Antarctica is applied to the lands in the western hemisphere, the name East Antarctica must be applied to the lands in the eastern hemisphere.

These names were also invented independently by Dr. Otto Nordenskjold during the winters of 1902 and 1903 at Snow Hill on the coast of Nordenskjold Land.\* He explained clearly his reasons for choosing these names. And here the writer would like to put on record his appreciation of the courtesy shown to him by Dr. Nordenskjold. Dr. Nordenskjold, than whom no one was ever fairer or more impartial, has, when discussing Antarctic nomenclature,† invariably referred to the writer's priority in the invention of the names West Antarctica and East Antarctica. In return, I wish to accentuate the fact that these names were thought out independently by Dr. Nordenskjold, and that his use of them has probably insured their universal adoption.

Further studies in Antarctic history and nomenclature, however, have led once more by evolution Dr. Nordenskiold and the writer in the same direction in a search for available names. The name West Antarctica described at first perfectly the land complex of the Shetlands, Powell Islands, Palmer Land, Graham Land, etc. Since the discovery of Edward Land and Coats Land, however, both of which belong to West Antarctica, it no longer does so sufficiently. There is need of a more specialized name. The writer has occasionally used for Palmer Land, Graham Land, etc., the appellation "Northern West Antarctica." And Dr. Nordenskjold in his recent work suggests that a definite name be given to these lands and suggests "Nordöstlich West Antarctica" or for shortness "Nordwestantarctica."§ But is this terminology which once more suggested itself independently to Dr. Nordenskiold and myself the best? I think not. For if there is a Northern West Antarctica, there should be a Southern West Antarctica. And by analogy there ought to be a Northern East Antarctica and a Southern East Antarctica. And none of these three latter names is in anywise suitable. Yet some names are imperative, as anyone who attempts to write about Antarctic discovery will soon find out.

It would seem as if the solution consisted in carrying further the terminology in accordance with the hemispheres. Besides the divisions into halves, Antarctica might be divided into quarters. Here

<sup>\*</sup>Antarctica or Two Years amongst the Ice of the South Pole, 1905, pp. 68-69.

<sup>†</sup> Antarctica or Two Years amongst the Ice of the South Pole, p. 69. The Geographical Journal, 1911, Vol. XXXVIII, p. 287. Die Schwedische Südpolar Expedition, p. 64.

t Bulletin American Geographical Society, February, 1911, p. 87.

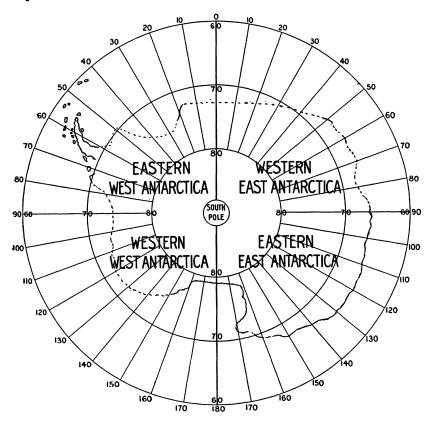
<sup>§</sup> Die Schwedische Südpolar Expedition, p. 66.

we have the quadrant idea of Sir Clements R. Markham, in itself a good idea. If the hemispherical terminology be applied to this. West Antarctica would be divided into Eastern West Antarctica between o° and 90° W., and Western West Antarctica between 90° W. and 180°: and East Antarctica would be divided into Eastern East Antarctica between 180° and 90° E., and Western East Antarctica between 90° E. and 0°. A small map inscribed with these names only is published with this article in order to present them more clearly. If a still more specialized name is deemed necessary for the peninsula from Palmer Land to Fallières Land inclusive. Northeastern West Antarctica, as suggested by Dr. Nordenskjold, would answer the need. It might also be possible, for everything south of 80°, to use the term Central Antarctica, which would be susceptible of division also into Central West Antarctica and Central East Antarctica. It would, however, be rather cumbersome to add these latter names. The division into quarters, with possibly the name suggested for the peninsula by Dr. Nordenskjold, ought to be amply sufficient for clearness. The greatest drawback to these names is their length, and this may militate against their adoption. It is questionable, however, if they could be shortened in English. It would seem impossible to abbreviate Eastern and Western into East and West without destroying the euphony of the names. Whether geographers will put the seal of approval on this suggested nomenclature will depend, of course, on how much they consider it necessary.

All other names in Antarctica, in my opinion, need to be local only, and as far as possible should commemorate the explorers themselves, or the men who made the expeditions possible. And, in applying names to local parts of Antarctica, it must be noted that Antarctica consists of a mainland and islands. It is necessary, for geographical clarity, that all coastal areas of the mainland should have special names. These should receive the additional surfix of "land." Dr. Nordenskjold has recently suggested\* designating Antarctic coastal lands by the surfix "coast" instead of "land." I should deprecate such a change. The term "land" has been generally used in the polar regions to describe new landfalls. It is more descriptive and accurate than "coast," for it includes a certain amount of the hinterland. It seems to me the term "land" should be reserved for the mainland as opposed to "island": and when the insularity of any discovery is proved the term "land" can be changed into "island"

<sup>\*</sup> Die Schwedische Südpolar Expedition, pp. 69-70.

almost automatically. The term "group" instead of "islands" must be used in two or three instances for special reasons. Archipelago is perhaps best avoided on account of its length. Any parts of the Great Ice Cap actually explored might well receive the surfix of "plateau."



# CHART OF ANTARCTICA

SHOWING SUGGESTED HEMISPHERICAL NOMENCLATURE DRAWN BY EDWIN SWIFT BALCH MAY 1912

When one turns to the local nomenclature of Antarctica, the proper starting point for its examination is found at once by obeying the guiding principle of priority of discovery. And since the earliest inroads towards the far south were made in West Antarctica, that

region should be studied first. Although it is probable that we shall never know who made the earliest Antarctic discovery, yet on some old maps, dating at least as far back as 1570, there is charted south and east of Terra del Fuego, land with a gulf called Golfo di S. Sebastiano and an island called Y de Cressalina.\* And in their shape and orientation there is a striking resemblance to Bransfield Strait and its surrounding shores. It may be therefore that the discovery of land in West Antarctica occurred about the middle of the sixteenth century. This, however, cannot be proved from present knowledge.

The oldest record of crossing 60° S. is the statement made by Laurens Claess of Antwerp, who says that in 1603 he was in a ship commanded by Don Gabriel de Castiglio, that they reached 64° S., and that they had a great deal of snow: but he does not mention sighting land.† The next oldest record is the short account published in 1622 at Amsterdam‡ stating that high mountainous land had been discovered by Dirck Gerritsz in 64° S., south of the Straits of Magellan. The attribution of discovery to Gerritsz was disproved by Dr. Arthur Wichmann, but the discovery itself has not been disproved. The account in Herrera, however, attributing the discovery in 64° S. to Gerritsz; and the fact that Laurens Claess, who says he went to 64° S. with Castiglio, had been one of Gerritsz' companions, certainly point towards Castiglio as the sea captain who made the discovery. The position given in Herrera corresponds most nearly with the present Liège, Brabant and Anvers Islands. And it is certainly a curious coincidence that these names should have been given to the spot which corresponds most nearly with that written about in Amsterdam in 1622, and that they are placed near the very parallel mentioned by the Flemish sailor: for every reason, therefore, these names should be considered as fixed.

But how about a name for these three islands together. The name Dirck Gerritsz Archipelago was once applied to all Northeastern West Antarctica. Then it was transferred to the Liège, Brabant and Anvers Islands. Later these islands were called the Palmer Archipelago. Quite recently, Dr. Nordenskjold has suggested calling them Belgica Archipelago. None of these names seems a good one to me. There is no absolute need of having any special collective name for these three islands, but if one is to be given it should be that of the still not certainly known mariner—possibly Don Gabriel

<sup>\*</sup> Antarctica, pp. 51-53.

<sup>‡</sup> Herrera: Description des Indes Occidentales.

<sup>†</sup> Antarctica, 1902, pp. 46-51. § Dirck Gerritsz, 1899.

de Castiglio—who before 1622 sighted land south of Cape Horn. It would seem as if further information as to their probable discoverer might be sought for and awaited before any collective name be applied to them finally as an archipelago, but temporarily the most available name would appear to be Castiglio Islands or Castiglio Group, a name which I place on one of the charts accompanying this article to let other geographers actually see it.

The next discoveries made in the southern portions of the Western hemisphere were some semi-Antarctic islands, the Sandwich Group, the rediscovered South Georgia, and the still uncertain Swain Island. Their nomenclature calls for no remark, except that of the Sandwich Group. Originally spoken of as Sandwich Land, they cannot be called Sandwich Islands on account of the archipelago in the Pacific bearing that name, and Sandwich Group has been wisely adopted.

Following these discoveries came those of the outlying chain of islands of Eastern West Antarctica. There are really three groups of these islands, in approximately the same parallels of latitude. The most westerly of these groups was discovered by William Smith, of Blythe, England, whose accidental landfall Dr. Nordenskjold\* was the first to really gauge the importance of. Smith called the islands he discovered the South Shetlands, a name ever since applied not only to the western group, but also to the middle group of Elephant and Clarence Islands. Dr. Nordenskjold now suggests calling the western group, William Smith Group, after their discoverer: an excellent suggestion, especially if shortened into Smith Group.

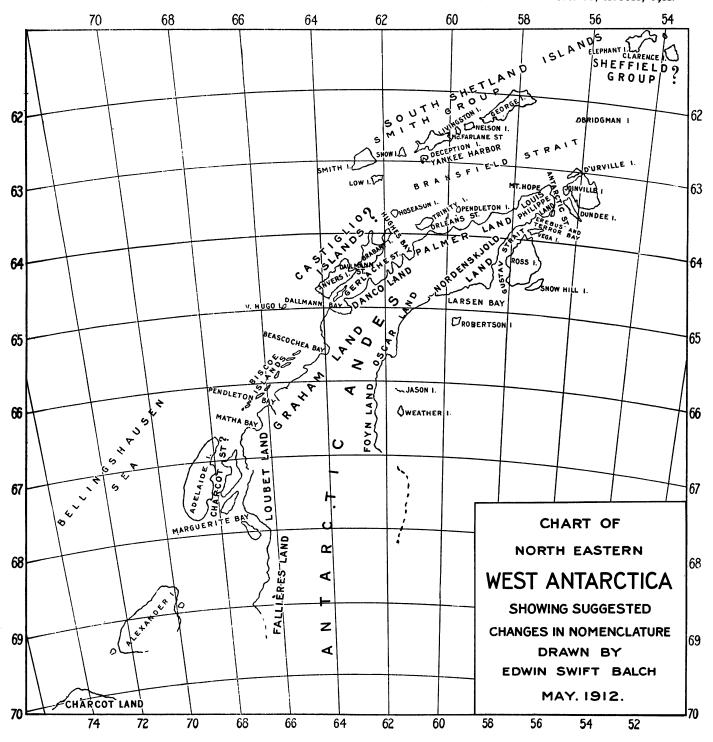
The most easterly of these groups was discovered by the British sealer George Powell and the American sealer Nathaniel B. Palmer in December, 1821. Powell says he was the first to sight these islands to which he gave his own name. They are usually called the South Orkneys, a name apparently given by Weddell, and although it is doubtless too late to change that name, yet the original name Powell Group or Powell Islands should also be restored as an alternative. Some geographers, Dr. Hugh Robert Mill, for instance,† have already followed the writer in so doing.

The middle group, Elephant and Clarence Islands, has no special name as yet. Dr. Nordenskjold‡ thinks it ought to have one, and with this I heartily agree. For a name, however, he suggests

<sup>\*</sup> Antarctica or Two Years amongst the Ice of the South Pole, pp. 67-79.

The Siege of the South Pole.

‡ Die Schwedische Südpolar Expedition, p. 70.



Powell's, and here I am at odds with him. For in the first place Powell's name is already rightfully attached to the eastern group, and furthermore there is no evidence that the middle group was discovered by Powell. I do not know who did discover the middle group, but doubtless it was some sealer who did not record his dis-The rightful name for this group, therefore, is hard to specify. The discoverer may still be identified, in which case there should be no hesitation. If a temporary name, however, is wanted, that of James P. Sheffield has distinct claims to consideration. Sheffield commanded the second recorded expedition to the Shetlands, and he made the second recorded landing in Antarctica. It is by no means proved that he had heard of Smith's discovery of the Shetlands: in fact the evidence tends to show he had not.\* In view of these facts, I would suggest that the middle group, Elephant and Clarence Islands, be called Sheffield Group.

South of the Shetlands lies Bransfield Strait, correctly named after the English captain whose ship's keel is the first recorded as having plowed its waters. In the midst of the strait lies Deception Island with a fine roomy harbor, Yankee Harbor. It is not known who discovered and named this island nor this harbor, but Yankee Harbor appears to be first mentioned in print in 1833 by Edmund Fanning.† The earliest use in manuscript of the name Deception I have seen is in the letter of E. Fanning and B. Pendleton to N. B. Palmer, dated Stonington, July 21, 1821.‡ Dr. Charcot, however, called attention to the fact that in the voyage of 1820-1821, the American sealing fleet sailed to Yankee Harbor as if they knew beforehand all about it: and he thinks therefore that Sheffield and N. B. Palmer may have already been there in the Hersilia in 1819-1820, in following the Esprito Santo of Buenos Aires.|| Dr. Charcot reasons further that Deception Island may have been known still earlier to some Argentine sealers. The matter is hopelessly tangled up and impossible to unravel from any data now accessible. But it shows once more that everything is not yet known about the history of Antarctic discovery: that there were probably other voyages than those so far recorded in print: and that possibly the statement of Dr. Berghaus that sealers had plied their vocation in the Shetlands before William Smith's discovery, is correct. Further information

<sup>\*</sup>Antarctica, pp. 78-79. Bulletin American Geographical Society, 1909, Vol. XLI, pp. 476-477.

† Voyages Round the World, etc., pp. 434-440. ‡ Bulletin American Geographical Society,
Vol. XLI, 1909, p. 483. 

‡ Le Pourquoi-Pas ? dans l'Antarctique, pp. 31-33. 

| Bulletin American Geographical Society, Vol. XLI, 1909, pp. 476-477.

<sup>¶</sup> Otto Nordenskjold: Die Schwedische Sudpolar Expedition, p. 35.

is certainly badly needed. The name of Yankee Harbor was afterwards changed to Port Foster after the captain of the *Chanticleer*. It is important that it should be restored for several reasons. It recalls a vanished period of Antarctic history. In Yankee Harbor the early American and English sealers sheltered their boats. And as there seems to be good evidence that the name Yankee was simply the mispronunciation of the name English by the American Indians, the name Yankee Harbor applies equally well to a port visited by Americans and Englishmen.

To the southward of Deception Island there are several other islands. The largest of these was called, probably by some member of De Gerlache's expedition, Trinity Island. This name is a good one, as it was once used for the northern mainland by Weddell. The second biggest island was christened Pendleton Island by Dr. Nordenskjold, after the senior captain of the first American sealing fleet: the name is a most fitting one and should be adopted. These islands are separated from the mainland by a sound, named by D'Urville Orléans Channel, a name which should also be retained.

The mainland of West Antarctica, was probably first sighted, as far as can be judged from known records, by Nathaniel B. Palmer. Fanning's account can certainly be construed as meaning that Captain Pendleton had the first glimpse, from Deception Island, of the mainland. But Mrs. Loper, Captain N. B. Palmer's niece, has told me that she has more than once heard her uncle, a very keen eyed man, relate how he had discovered Palmer Land from Deception Island. Palmer certainly was the first to explore the coast, and it was first charted as Palmer Land by Powell; then it was charted as Trinity Land by Weddell; then as Louis Philippe Land by D'Urville. The name Palmer Land, restored to this coast by Dr. Nordenskjold and the writer, is in all respects the most fitting name, and it should cover the mainland from 58° W. to 61° W. The name Louis Philippe Land should be retained for the extreme peninsula of the mainland, from 58° W. to Antarctic Sound.

At the eastern extremity of Louis Philippe Land is a mountain, 632 meters high, which is now sometimes charted as Mount Bransfield. Its original name, I believe, was Mount Hope, and it might be well to restore this, because, as far as known now, Bransfield does not seem to have sighted any part of the mainland.

On the east coast of Northeastern West Antarctica, almost all of the names given by D'Urville, Ross, Larsen and Nordenskjold should be definitely accepted. D'Urville, Joinville, Dundee, Paulet,

Vega, Ross, Seymour, Snow Hill and Robertson Islands are all good. So are Antarctic, Sidney-Herbert, and Admiralty Sounds; Erebus and Terror Gulf; and Crown Prince Gustav Channel when shortened to Gustav Channel. A long strip of this eastern coast, between 58° W. and 61° W., that is between Louis Philippe Land and Oscar Land corresponds exactly with Palmer Land on the north shore. I have already proposed\* for this land the name of its gallant explorer, Nordenskiold Land, and also charted it in 1909 under that The most elementary justice requires this appellation. denskiold Land makes a great curve enclosing a great bay, which I named and charted in 1902 as Larsen Bayt in commemoration of Larsen's discoveries, and this name has been already silently accepted. The shore of the mainland between 60° and 61° W., down to 66° S. will probably retain the name of King Oscar II Land, given to it by Larsen, but shortened into Oscar Land. The shore of the mainland between 66° S. and 67° S. deservedly bears the name of Foyn Land, because Svend Foyn was the principal backer of Larsen's two cruises in the Jason.

The coast beyond Foyn Land, from 67° S. on, is still unnamed. Nor is it known positively who first sighted it. Possibly it was Benjamin Morrell. Morrell states‡ that on March 17, 1823, he was off a coast in about 48° W., and 67°-68° S., and that he saw it continuing, with mountains of snow, a long distance southward. He speaks of this land as New South Greenland, a name which has fallen into almost complete desuetude. He must have seen land somewhere near his stated latitude, for his account is the first extant by a number of years of any land southward of Joinville Island. There are certain statements by Fanning, however, as well as certain other evidences which I formerly discussed at length—especially the probability that Morrell's longitudes were inaccurate and that for 48° W. one should read 58° W.—which tend towards showing that Morrell was off the coast south of Foyn Land.§ Dr. Hugh Robert Mill, a dispassionate British writer, appears to endorse this side of the case, for he speaks of Morrell's North Cape of New South Greenland as being probably intended for Louis Philippe Land and Joinville Island. But it is certainly extremely significant that Dr. W. S. Bruce, the discoverer of Coats Land, who has been closer than anyone since Morrell to the position given by Morrell, should mark "New S. Greenland" on his latest chart.¶ It seems as if there must have been some potent

<sup>\*</sup>Evening Post, New York, Sept. 24, 1908. Proceedings American Philosophical Society, Vol. XLIII, 1909, p. 38. † Antarctica, pp. 200-201. ‡ A Narrative of Four Voyages, etc., 1832. § Antarctica, pp. 100-107. The Siege of the South Pole, pp. 109-110. Polar Exploration, 1911, p. 8.

cause at work to influence such a reliable scientific observer as Dr. Bruce, and his opinion certainly carries far more weight than any one else's in this matter. If there is land in 48° W., 68° S., and it may be that Lieutenant Filchner will find some there, it should certainly be called Morrell Land. If not, it seems as though the coast south of Foyn Land should bear his name. Under the circumstances, it seems as if the nomenclature of these two spots should be held in abeyance until further exploration.

Eastward of Joinville Island, Nordenskjold Land, etc., a great gulf or bay extends far south into Eastern West Antarctica. It was originally called George the IV Sea by its discoverer Weddell, but now that the reverence for King George IV appears to have vanished in Britain, geographic justice has prevailed, and on the suggestion of, I believe, Dr. Fricker, the portion of the ocean where Weddell made his plucky dash south is becoming known, as it should be, as the Weddell Sea.

The eastern boundary of Weddell Sea is also in Eastern West Antarctica, in the neighborhood of 20° W. The portion which has been sighted is known as Coats Land, a most suitable name and a well-deserved memorial for the gentlemen who helped finance Dr. Bruce's Scotch expedition. Curiously enough, Coats Land is located near to where Mr. Foxton reported that land had been found in 1833 by Lieutenant Binstead. Accepting Mr. Foxton as accurate, I wrote of this land in 1902 as Binstead-Foxton Land.\* But Dr. Mill† states that the voyage referred to was really that of Biscoe and Rea, and that the land referred to was some fifty degrees of longitude distant from Coats Land. Biscoe, however, did not go on the voyage of Rea, when one of the latter's ships was crushed by the ice near the South Shetlands‡ and it is probably that voyage which Mr. Foxton had in mind.

From the western end of Palmer Land to the 180° meridian, that is along the western coasts of West Antarctica, almost all the names were given by six explorers, Bellingshausen, Biscoe, Dallmann, de Gerlache, Scott and Charcot. Almost all of their appellations should stand.

Contiguous to Palmer Land we find Danco Land, well named after de Gerlache's gallant companion who gave his life for exploration, and separated from the Castiglio Group, by the equally well named Gerlache Straits. Along the straits, and on the western sides of the Castiglio Islands, the names given by Biscoe, Dallmann, de

Gerlache, and Charcot, with two or three exceptions or rather rectifications, must remain. Gerlache Strait itself was first indicated as a strait on Powell's chart. After that for many years, its northern end was charted as Hughes Gulf. It is possible that Smiley may have sailed through Gerlache Strait, but this remains uncertain. Dallmann next visited the southern entrance of these straits, which he called Bismarck Strait. Then came de Gerlache, who named the straits Belgica Strait, a name still occasionally used.\* But de Gerlache's comrades, among them Frederick A. Cook and Roald Amundsen, afterwards changed this name to the much better one of Gerlache Strait, which will undoubtedly be finally accepted.

I do not know who gave the name Hughes Gulf to the northern end of Gerlache Strait, although it may have been a Captain Hoseason,† nor whom the name commemorated, but it should not be obliterated. Whilst it cannot remain attached to the body of water encompassed between Trinity Island, Palmer Land, and Liège Island, it might be transferred with fairness to the great bay separating Palmer Land and Danco Land, and called by de Gerlache, Brialmont Bay. I hope that this may be done, and that this bay may hereafter be known as Hughes Bay. The same thing should take place at the southern end of Gerlache Strait, which Dallmann called Bismarck Strait, a name still used by some German geographers.‡ This name will not do, for Dallmann did not sail through Gerlache Strait and did not prove that it was a strait. If such reasoning were followed, Gerlache Strait should be called Palmer Strait, since it is charted as a strait on Powell's chart. But following the precedent suggested for Hughes Bay at the northern entrance of Gerlache Strait, Dallmann's discovery might be commemorated at the southern entrance by remaining the great bay called by de Gerlache Flanders Bay, and naming this Bismarck Bay, or better still Dallmann Bay. The editor of Stieler's Atlas of Modern Geography, 1909, appears to be inclined to think much as I do, for he charts a bay in 65°30' S. as Bismarck Strait. This corresponds with Charcot's Beascochea Bav. But as Dallmann's discovery was certainly the south entrance of Gerlache Strait, where he must have looked into de Gerlache's Flanders Bay, it seems to me it is more accurate to mark Dallmann's discovery by changing that name into Dallman Bav.

Another important rectification is the name of the strait between

<sup>\*</sup>Stieler: Atlas of Modern Geography, 1906. † Antarctica, p. 114. ‡ Andree: Allgemeines Handatlas: Herausgegeben von A. Scobel, 1906.

Brabant and Anvers Isalnds. Originally charted from the west as a bay by Dallmann, and called Dallmann Bay, it was afterwards named Schollaert Strait by de Gerlache. This name should certainly be dropped, and the strait called after the gallant German explorer, Dallmann Strait.

From Dallmann Bay, in 65° S., to Matha Bay, in 66°30′ S., the coastal name is crystallizing into Graham Land. Graham Land was discovered before the year 1828 by Benjamin Pendleton, it was named by Biscoe, and it was explored by Charcot. At one time the name of Graham Land was the best known in West Antarctica, and this was undoubtedly due to the Mercator charts magnifying by leaps and bounds out of all proportion the size of the more southerly lands, across which the name Graham Land was printed in huge letters, so that it arrested forcibly the eye, and caused many persons to think it applied to the whole of Eastern West Antarctica.

During the voyage on which Pendleton discovered Graham Land, he sailed into a great bay or strait whose latitude he gives as 66° S. I charted such a bay tentatively in 1902 as Pendleton Bay, and on his recent voyage, Dr. Charcot sailed into a big bay in 66°15′ S., and fixed its name as Pendleton Bay. His courtesy will be much appreciated by Americans.

Off Graham Land, the Biscoe Islands; further south Adelaide Island, named by Biscoe; and Alexander Island, named by Bellingshausen; are all good names. So is Bellingshausen Sea, whose sponsor I do not know, for the great arm of the ocean between the Shetlands and Peter Island. The other names in this quarter are mainly those given by Charcot, such as Matha Bay, Marguerite Bay, Loubet Land, from 66°30′ S. to 68° S., and Fallières Land from 68° S. to 69°30′ S. Charcot Land, in 70° S., was really named by the writer, who has also suggested,\* and who would like now to renew the suggestion, calling the straits between Adelaide Island and Loubet Land, Charcot Straits.

In the vicinity of Charcot Land, there is an island which has appeared at least once on a map under the name of "Smilies I." This is on a globe, manufactured by Gilman Joslin in Boston and copyrighted by Charles Copley in Washington in 1852, which is now in the Academy of Natural Sciences in Philadelphia. On this is charted "South Shetland," south of this in about 69°S' "I. of Alexander," and south of this again, beyond 71°S., "Smilies I." It is impossible to identify this island. Smiley is known to have gone far

<sup>\*</sup> Bulletin American Geographical Society, Vol. XLII, 1911, p. 86.

south, but how far cannot be determined. In fact Smiley's own statements are incomprehensible. In a letter to Maury he said he had sailed round Palmer Land and far south of it, and that might be held to imply that he had been beyond Fallières Land. Wilkes, however, states that Smiley wrote to him that Palmer Land consists of islands between which Smiley had entered, and that the passages are deep, narrow and dangerous: so it may be that Smiley was referring to the Castiglio Islands and that he sailed through parts of Gerlache Strait. But as Smiley also says in his letter to Maury, that he had no logs or books remaining which would be of use to Maury, the matter can never be cleared up, unless totally unexpected information should turn up.\*

One capital name, suggested, I believe, by Mr. Henryk Arctowski, is the Antarctic Andes for the great mountain range springing up in the South Shetlands and continuing to Fallières Land, where they disappear into the unknown. For these mountains appear to be geologically a continuation of the South American Cordilleras and the name Antarctic Andes suggests both their formation and their relation to the American continent. It may turn out that the Antarctic Andes extend to Amundsen Land and Victoria Land, but the geological formations of Eastern West Antarctica and Eastern East Antarctica appear, according to Dr. Nordenskjold, to be different. Further exploration alone will solve this great geographical problem.

Continuing westward we come to Peter Island, discovered by Bellingshausen. Then, in about 85° W., we pass the spot where de Gerlache struck the continental shelf in soundings: there must be land there to the south which must wait for a name. In about 107° W., there seems to be a gulf in the pack where James Cook in 1774 made his record latitude: this gulf Charcot is inclined to think permanent. Why not therefore call it Cook Gulf? Beyond this Charcot also struck, in about 120° W., the continental shelf, implying a still nameless land in the immediate south. Between 140° W. and 150° W., Cook is perhaps the only explorer who writes of having crossed the Antarctic Circle. Nevertheless, Edmund Fanning† reported an extensive bank of from 60 to 100 fathoms in depth between 66° S. and 69° S., to the westward of 140° W., which he thought may be connected with extensive land to the south. may prove to be the continental shelf of Antarctica, and if it should turn out that this bank exists, it might well be called Fanning Bank. West and south of this comes Edward Land, where all the various

names given by its discoverer Scott must be accepted: as will also doubtless be any affixed by Lieutenant Prestud and Lieutenant Shirase to their own discoveries.

Between Edward Land and the South Pole, all the various nomenclature given by Amundsen, Axel Heiberg Glacier, Devil's Dancing Room, etc., will naturally be immediately accepted. great area of land which Amundsen discovered, some 500 miles long, should, as already suggested by the writer,\* certainly be called Amundsen Land. Some of this, bounding the Great Ice Barrier on the south and for some distance on the east, evidently forms part of the shore line of West Antarctica. There must, however, be a long stretch of unsighted coast, possibly several hundred miles long, between Amundsen Land and Edward Land, still awaiting a discoverer and a name. Haakon Plateau, for the ice cap round the Pole, within the circle of 89° S., is a good name, until geographers decide possibly that Amundsen Plateau might be better. Farther west than Edward Land and Amundsen Land, the names of Ross Sea, and of Great Ice Barrier, sometimes shortened into Ross Barrier, carry the nomenclature into the eastern hemisphere. The name Great Ice Barrier, which appears to have come about almost accidentally but naturally, is not only descriptive, but extremely individual.

In the eastern hemisphere the first discoveries were some semi-Antarctic islands, and these in time received the names of their discoverers, Bouvet, Marion, Crozet, and Kerguelen Islands, as was also the case later with Heard and McDonald Islands.

Starting at the meridian of Greenwich and working east no land has been sighted until 50° E., where Enderby Land, well named after Biscoe's employers, is reached. It is probable that Enderby Land is the edge of the continent. Benjamin Morrell† reported reaching 60°11′ S., 48°15′ E., which would be almost south of Enderby Land: but as Morrell's longitudes, as already mentioned, were probably wrong by some ten degrees, it may well be that he was in 38° 15′ E., instead of 48° 15′ E.: a possibility which appears to have been unnoticed as yet. Further exploration must be awaited to learn whether there is salt water at 69°11′ S., 38°15′ E., and whether Enderby Land is part of the continent. In about the same latitude as Enderby Land, Kemp Land, correctly named after its discoverer, is next reached in about 58° E. Beyond Kemp Land

<sup>\*</sup> Bulletin American Geographical Society, Vol. XLIV, p. 165.

<sup>†</sup> A Narrative of Four Voyages, etc., p. 65.

the icy pack has again baffled the efforts of navigators for a long distance. In about 76° E., however, Nares crossed the Antarctic circle, and sailed into a sort of gulf in the pack which may perhaps mean an indentation in the coast there. No name has been given to this as yet. But as the great Scotch oceanographer, Sir John Murray, was then on board the Challenger, it would seem appropriate to commemorate his services to Antarctic geography by naming this spot Murray Gulf. East of Murray Gulf, the coast of East Antarctica again remains unsighted until the land discovered by the Drygalski expedition between 92°30′ E. and 90° E. is reached. They named this land Kaiser Wilhelm II Land, a name shortened by Bruce into Wilhelm Land; and this name will doubtless remain for awhile, but in fifty or a hundred years it may be replaced by Drygalski Land. The mountain discovered there is most appropriately called the Gaussberg.

Continuing east, the coast of East Antarctica extends from about 94° E. to about 153° E., somewhat south of the Antarctic Circle. This is where Lieutenant Charles Wilkes, U. S. N., made, in 1840, his immortal discoveries. For he recognized, one might almost say by the intuition of genius, that he was on the edge of a continent, instead of on that of a frozen ocean whose existence was then generally accepted. His discovery revolutionized all conceptions of the Antarctic and was the starting point of all our present ideas. He called this land The Antarctic Continent, but it soon began to appear on maps, most justly, as Wilkes Land. For the name Antarctic Continent inevitably had to be borne by the entire continental mass Wilkes first told the world of, and some geographers instinctively recognized that the portion sighted by Wilkes ought to bear his name, in commemoration of his great service to science.

Wilkes also christened a number of places on the coast of Wilkes Land, chiefly after various officers of the United States Exploring Expedition. From west to east, he gave the names of Termination Land, Repulse Bay, Knox's High Land, Budd's High Land, Totten's High Land, North's High Land, Porpoise Bay, Cape Carr, Piner Bay, Point Alden, Point Case, Disappointment Bay, Point Emmons, Peacock Bay, Cape Hudson, Reynolds' Peak, Eld's Peak, and Ringgold's Knoll. It would seem advisable to change a little the form of some of these names. Knox's High Land, Budd's High Land, Totten's High Land, and North's High Land, must be shortened into Knox Land, Budd Land, Totten Land and North Land. Cape Carr, Point Alden, Point Case, Point Emmons and Cape Hudson, which

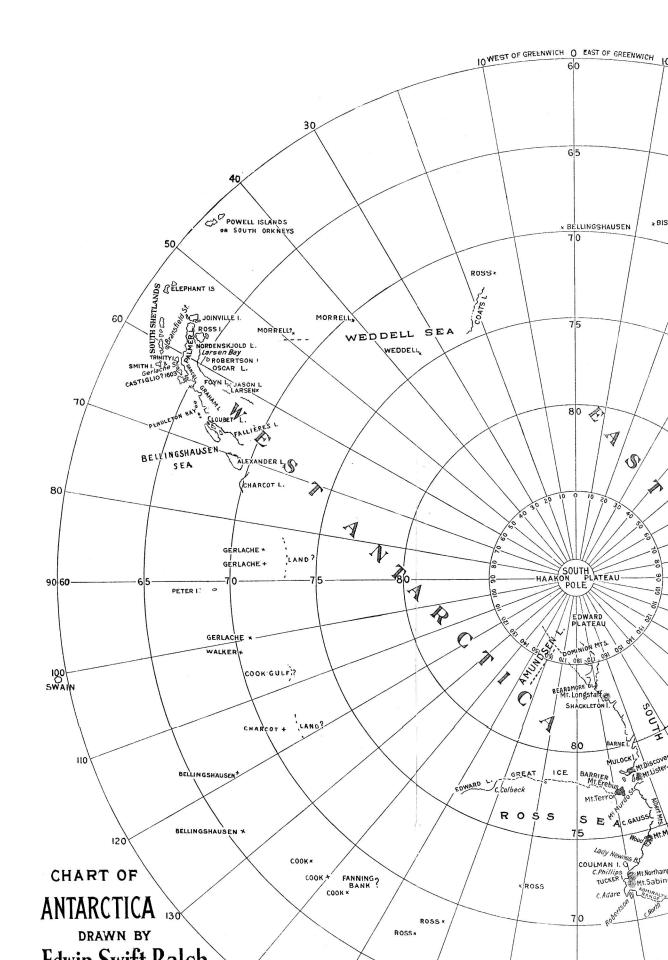
in each case imply land, must be changed into Carr Land, Alden Land, Case Land, Emmons Land, and Hudson Land. It is probable, however, that most of the lands discovered by Wilkes are a little further south than Wilkes charted them; for it is a well-known fact that distances in the Antarctic are almost always underestimated. This has already proved true of Carr Land and Termination Land, and it will doubtless prove true of Hudson Land. It may also turn out that the three small islands Wilkes thought he sighted, Reynold Peak, Eld Peak and Ringgold Knoll, were monster icebergs: but this is not proved as yet. Wilkes did not give any name to the rocks seen by Pinkney of the Flying Fish in 65°58' S., 157°49' E., and this omission should be rectified by christening them Pinkney Island.

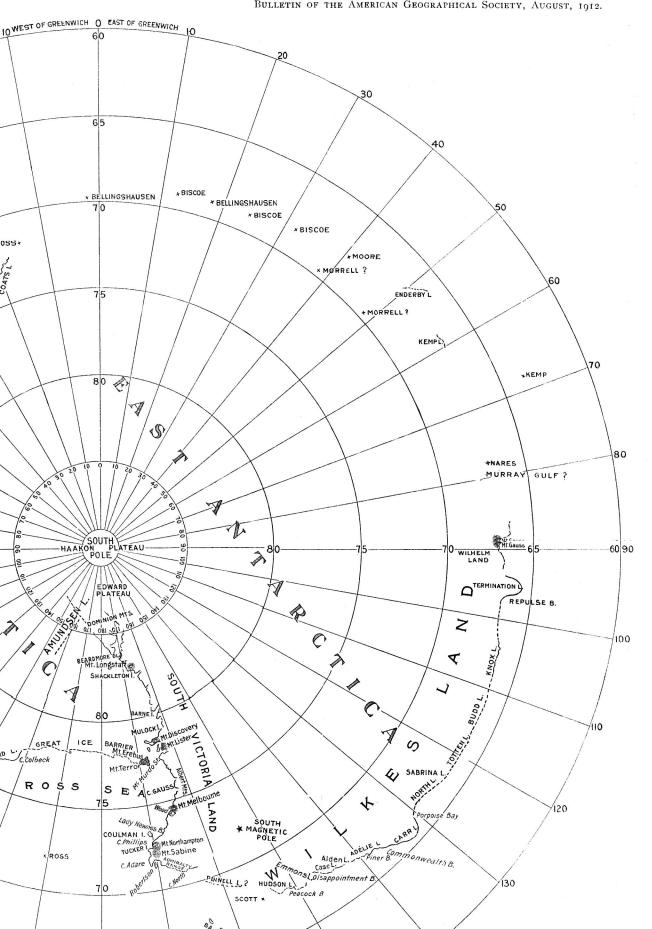
Two points of Wilkes Land were sighted by other explorers than Wilkes and his companions. One is in about 128° E., and was discovered by John Balleny, who called it Sabrina Land, in memory of his second vessel, which was lost with all on board in the Antarctic seas. The other is in about 140° E., and was discovered by the great French navigator, Dumont d'Urville, who landed there and was the first to tread on solid rock in East Antarctica. He called this coast Adélie Land, and this name is probably too well fixed to alter it, as would be only just, to D'Urville Land. An ice barrier in about 134° E., formerly supposed to have been discovered by D'Urville and named by him Côte Clarie, was recently proved by Rear Admiral John E. Pillsbury to have been first sighted by Lieutenant Ringgold of Wilkes' expedition.\*

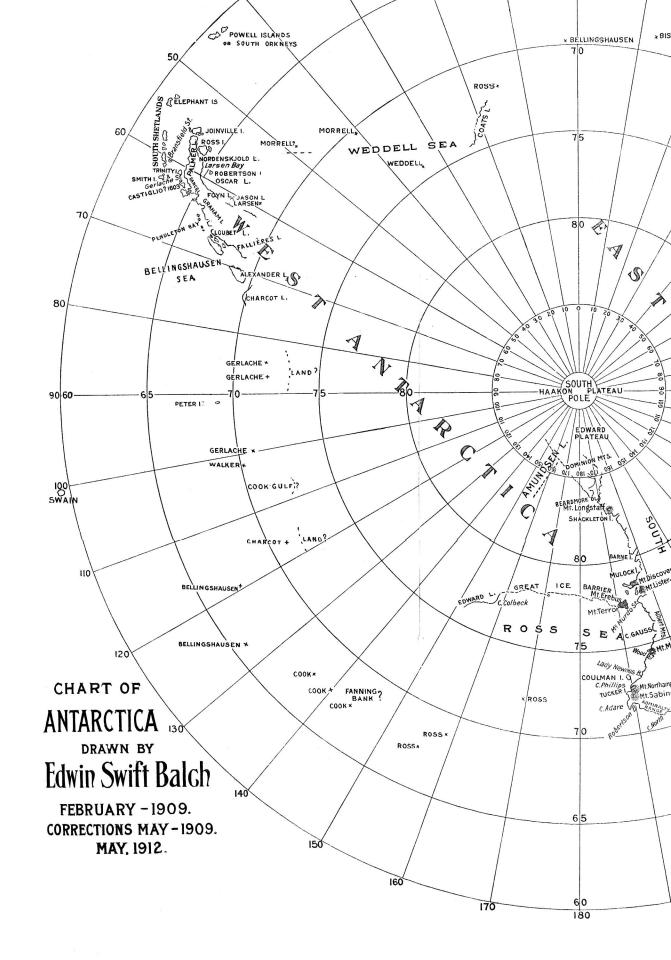
The preliminary report of the Australasian Antarctic Expedition under Dr. Mawson† to Wilkes Land absolutely corroborates Wilkes. Wilkes Land evidently is located just where Wilkes said it was, only a little further south. Although the Aurora was a steamer, built for ice navigation, however, Captain Davis was unable to hug the shore as closely as did Wilkes in his undefended sailing ships. But Davis saw such innumerable monster icebergs and such tremendous stretches of barrier ice, that he proved definitely anew the continuity of the coast line of Wilkes Land somewhere along 67° S. Between Adélie Land and Carr Land, Davis discovered a great bay which he named Commonwealth Bay. Davis also located Carr Land about one degree south, and Termination Land about two degrees south, of Wilkes' positions for them. Totten Land Davis did not see, although his soundings in 340 fathoms and the immense collection of bergs he

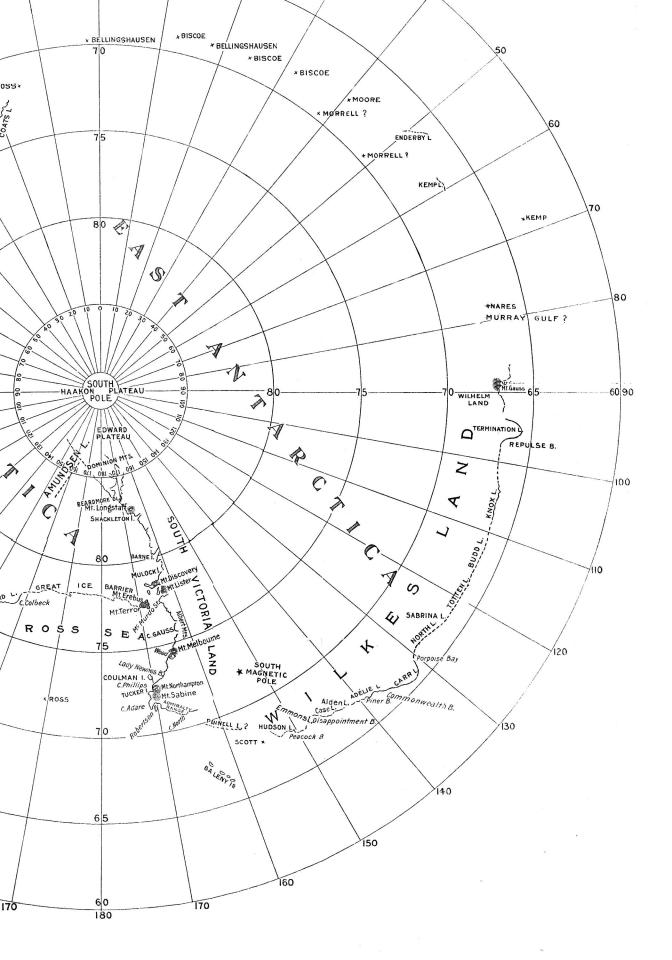
<sup>\*</sup> The National Geographic Magazine, Vol. XXI, 1910, pp. 171-173.

<sup>+</sup> The Geographical Journal, Vol. XXXIX, 1912, pp. 482-486.









saw, prove that Totten Land is located also perhaps a degree or so to the south of Wilkes' position for it. The ice barrier, called by D'Urville Côte Clarie, was found by Davis, at least to some extent, broken up. As far as the nomenclature is concerned, therefore, Mawson and Davis' explorations bring out one fact preeminently, and that is that the name Wilkes Land, and all the names given by Wilkes to parts of Wilkes Land, must stand for all time.

Between Hudson Land, the 180th meridian, and the 80th parallel, almost all of the names given by Balleny, Ross, Borchgrevink, Scott and Shackleton, must be accepted. The Balleny Islands are well named after their discoverer, John Balleny. The nomenclature of South Victoria Land, from Cape North to the Commonwealth Range, is pretty well established. It is open to two or three suggestions. One is that the coast, in 69°50' S., 163°20' E., and 68°30' S., 158°15' E., sighted by Lieutenant Pennell of the Terra Nova\* does not appear to have been named as yet, and might well be called Pennell Land. Another suggestion, already made by the writer,† would be to call the coast discovered by Shackleton to the west of Cape North, Shackleton Land. British geographers, however, may perhaps prefer considering these coasts as parts of South Victoria Land. Ross Island, on account of Ross Island in West Antarctica, ought certainly to be renamed: and a good substitute would be Hooker Island. The name King Edward VII Plateau, given by Shackleton to the ice cap south of Victoria Land, must be held to apply to the portion of the ice cap between Victoria Land and Haakon Plateau. It might well be shortened into Edward Plateau and better still be changed to Shackleton Plateau. It is an excellent idea, since it enables accuracy in writing, to christen in such wise any parts of the ice cap reached. The entire plateau needs no especial name, as it must inevitably be spoken of as the Great Ice Cap of Antarctica.

<sup>\*</sup> Geographical Journal, 1911, Vol. XXXVII, p. 569.

<sup>+</sup> Bulletin American Geographical Society, 1910, Vol. XLII, p. 21.